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## NOTES ON THE GRASS FLORA OF THE CHICAGO REGION

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THE Chicago region as designated by Swink (1953) includes all or parts of four counties in Illinois (Lake, Cook, Du Page and Will) and parts of three counties in Indiana (Lake, Porter and La Porte). For the past three years I have been studying and collecting grasses with the intention of preparing a grass flora of this region. During this period, many new records were discovered and are reported here along with notes on these and other pertinent grasses.

Specimens cited were examined by me at the following herbaria: Chicago Natural History Museum (F), University of Illinois, Navy Pier (NP), University of Illinois, Urbana (ILL), University of Wisconsin (WIS), and University of Indiana (IND). I want to thank the curators of these herbaria for the privilege of studying their specimens.

*AGROPYRON REPENS* L. forma *ARISTATUM* (Schum.) Holmb. was reported from Lake County, Indiana by Steyermark and Swink (1952). After examining a large number of specimens from the Chicago region, I have concluded that *Agropyron repens* is an exceedingly variable species with no clear cut varieties or forms. In some specimens the lemmas are either all awnless or all awned, whereas in other specimens the lemmas are acute, awn tipped, short awned or long awned on the same plant. Furthermore, it is difficult to follow Fernald's (1950) key to the varieties and forms, especially in the distinction between "glumes abruptly narrowed" versus "glumes gradually tapering from middle." Fassett (1951) states that it is not unusual to find two forms of this species in a single collection and any large patch is apt to contain several forms.

*AGROPYRON SMITHII* Rydb. COOK: Palos Park, June 18, 1909, *Umbach*



3468 (wis); West Englewood, June 20, 1918, *A. E. Johnson 3* (F). Previously reported from DuPage and Will Counties by Jones & Fuller (1955).

AGROSTIS PALUSTRIS Huds. COOK: Chicago, 92nd and Stony Island, August 10, 1956, *Glassman 3793* (NP); Oak Forest, July 3, 1914, *Hill 2/1914* (F). LAKE: Lake Villa, July 11, 1908, *Umbach 2290* (wis). Previously reported from DuPage County by Jones & Fuller (1955). Fernald (1950) refers to this species as *Agrostis alba* var. *palustris* (Huds.) Pers. *A. palustris* has been frequently confused with *A. alba*, hence a key distinguishing the two follows:

Culms with leafy stolons and sometimes rhizomes in addition,  
densely matted; blades about 1–4 mm. wide, stiff; panicle  
branches closely appressed, closely contracted in fruit....*A. palustris*.  
Culms with rhizomes, not matted; blades 3–10 mm. wide, lax;  
panicle open, partially contracted in fruit.....*A. alba*.

AGROSTIS PERENNANS var. AESTIVALIS Vasey. COOK: Riverside, Sept. 26, 1885, *Ohlendorf* (F). No previous records from the Chicago region. This variety is separated from the species by having smaller spikelets (1.5–1.8 mm. vs. 1.9–3.0 mm.) and by being smaller in size (less than 30 cm. vs. 30–100 cm.).

AGROSTIS SCABRA Willd. f. TUCKERMANI Fern. DU PAGE: Lisle, June 2, 1896, *Umbach 3300* (wis). Not previously reported from the Chicago region. In this form the lemmas are dorsally awned.

ALOPECURUS PRATENSIS L. LAKE: Lake Forest, May, 1895, *M. L. Jensen 89* (F); COOK: Chicago, Graceland, June, 1905, *Gates 478* (F). Not previously reported for the Chicago region. This species differs from others in the region by the longer spikelets (3.5–5 mm. vs. 2–3 mm.) and longer anthers (2.5–3.0 mm. vs. 0.5 mm.).

ARISTIDA INTERMEDIA Scribn. & Ball. LAKE: Waukegan, June, and Sept. 4, 1909, *Gates 3260* and *Gates* (no number) (both ILL); PORTER: Beverly Shores, Aug. 28, and Sept. 5, 1956, *Glassman 3846* and *3899* (both NP). Not listed from Chicago region by Jones & Fuller (1955). Not listed by Deam (1940) for Porter County; however, cited by Pepon (1927) for that county, but probably based on a misidentified specimen of *A. purpurascens* (see Fassett (1933)).

ARISTIDA LONGESPICA Poir. PORTER: Tremont, Oct. 9, 1955, *H. R. Bennett* (NP). First verifiable record for Porter County. Reported by Peattie (1930), but no specimens have been seen.

ARISTIDA PURPURASCENS Poir. DU PAGE: Wheaton, 1895, *Moffatt 3335* (wis). Not previously reported from Du Page County.

BROMUS INERMIS Leyss. LAKE (Indiana): Hammond, June 24, 1933, *Deam 53918* (IND.). PORTER: Beverly Shores, Sept. 1, 1956, *Glassman 3888* (NP). Previous reports from the Indiana part of the Chicago region are by Peattie (1930), without a cited specimen, and by Deam et al. (1947) from La Porte County.

BROMUS JAPONICUS Thunb. PORTER: Beverly Shores, Sept. 1, 1956, *Glassman 3891* (NP). Also reported from La Porte County by Deam et al. (1947).



BROMUS LATIGLUMIS (Shear) Hitchc. f. INCANUS (Shear) Fern. COOK: Riverside, Aug. 14, 1884, *Ohlendorf* (F). Not previously reported from the Illinois part of the Chicago region. According to Wagnon (1950), the valid name for *B. latiglumis* (Shear) Hitchc. is actually *Bromus purgans* L. Until I can personally look into the matter further, I prefer retaining the name *B. latiglumis*.

BROMUS NOTTAWAYANUS Fern. COOK: Riverside, July 27, 1884, *Ohlendorf* (F). Wagnon (1952) lists this for the Sand Dune area of Indiana, but apparently, this is the first record for the Illinois portion of the Chicago region. This species is distinguished from *B. ciliatus*, *B. purgans*, and *B. latiglumis* by the distinctly five-nerved second glume. The status of this species is still doubtful since there are so few collections of it. Wagnon (1952) thinks that *B. nottawayanus* is probably a hybrid between *B. purgans* and *B. latiglumis*.

BROMUS PURGANS L. DU PAGE: Warrenville, June 15, 1895, *Umbach 3355* (wis). First record for Du Page County. According to Wagnon (1950), the valid name for this species is *B. pubescens*, however, I am not using this designation until I investigate the matter further.

BROMUS STERILIS L. COOK: Ravenswood, Chicago, June 12, 1905, *Gates 447* (F). First report for the Chicago region. Jones & Fuller (1955) listed a similar species, *B. rigidus* Roth, collected in Chicago by Gates in 1905. Mosher (1918) and Pepon (1927) cited the same specimen under *B. villosus* Forsk. As I have not seen this specimen, I cannot be certain whether it is *B. rigidus* or *B. sterilis*. The two species are separated as follows:

Spikelets 2.5–3.0 cm.; first glume .8–1.0 cm., second glume 1.3–1.5 cm.; lemmas 1.5–2.0 cm., awns 2.0–3.0 cm.....	<i>B. sterilis</i> .
Spikelets 3.0–4.0 cm.; first glume 1.5–2.0 cm., second glume 2.5–3.0 cm.; lemmas 2.5–3.0 cm., awns 3.5–5.0 cm.....	<i>B. rigidus</i> .

ELEUSINE INDICA L. LA PORTE: Michigan City, Aug. 27, 1956, *Glassman 3827* (NP). First record for the Indiana part of the Chicago region.

ELYMUS VILLOSUS Muhl. f. ARKANSANUS (Scribn. & Ball) Fern. DU PAGE: Downers Grove, *Umbach 11064*, July 14, 1900 (wis). Not previously reported from the Chicago region. The form differs from the species in having lemmas glabrate to puberulent on lower part of body and glabrate to short hispid on the upper part vs. lemmas glabrate to hispid on lower part and hispid to villous on upper part.

ERAGROSTIS FRANKII C. A. Meyer. PORTER: Dunes State Park, Sept. 25, 1955, *H. R. Bennett* (NP); Beverly Shores, Aug. 31, 1956, *Glassman 3886* (NP). First record for Porter County. Deam (1929) states that Pepon (1927) published a record of this species for Porter County, but he actually mentioned the plant for Cook County only.

ERAGROSTIS POAEOIDES Beauv. PORTER: Beverly Shores, Aug. 28, 1956, *Glassman 3837* (NP). First report for the Indiana part of the Chicago region. Since this species is frequently confused with *E. ciliensis* (All.) Link, a key separating the two is given below:



Mature spikelets 1–2 mm. wide, 5–9 mm. long; glands of lemmas and glumes mostly obscure. . . . . *E. poaeoides*.  
 Mature spikelets 2.5–3 mm. wide, 5–15 mm. long, glands of lemmas and glumes prominent. . . . . *E. cilianensis*.

FESTUCA ELATIOR L. PORTER: Porter, Aug. 16, 1920, *Peattie 214* (F). Not previously reported for Porter County.

FESTUCA OBTUSA Bieler. LAKE: Beach Station, July 3, 1909, *Umbach 3752* and *3753* (wis). First record for Lake County.

HYSTRIX PATULA Moench. var. BIGELOVIANA (Fern.) Deam. LAKE (Illinois): Lake Forest, 1895, *M. L. Jensen 87* (F). COOK: Beverly Hills, June 22, 1902, *R. Bebb 902* (F). DU PAGE: Maple Grove Forest Preserve near Downers Grove, June 18, 1953, *Swink 2200* (F). Not previously reported from the Illinois part of the Chicago region.

LEPTOLOMA COGNATUM (Schultes) Chase. COOK: Chicago, near 49th and Lake Shore Drive, along Illinois Central RR., Aug. 11, 1956, *Glassman 3802* (NP); Chicago, between 14th and 31st Sts., Illinois Central RR. yards, Aug. 7, 1956, *Thieret 2184* (F). Not previously reported for the Illinois portion of the Chicago region.

MUHLENBERGIA FRONDOSA (Poir.) Fern. f. COMMUTATA (Scribn.) Fern. DU PAGE: Glen Ellyn, Sept. 2, 1917, *Benke 1967* (F); Wheaton, Sept. 8, 1892, *Moffatt 3459* (wis). First report for the Chicago region of Illinois. Differs from the species in the awned lemmas.

MUHLENBERGIA GLOMERATA (Willd.) Trin. COOK: West side of Wolf Lake, Oct. 17, 1953, *H. R. Bennett* (F); Chicago Ridge, Aug. 12, 1951, *Swink 309* (F). First records for Cook County.

PANICUM MERIDIONALE Ashe. WILL: Two miles southeast of Custer Park, Aug. 24, 1947, *Steyermark 64862* (F). Not previously reported from Will County. This species has frequently been confused with *P. implicatum* Scribn. (sensu stricto), thus a key distinguishing the two follows:

Many of the culms and sheaths covered with a mixture of pilose and puberulent hairs; upper blade surfaces entirely covered with long pilose hairs. . . . . *P. meridionale*.  
 Culms and sheaths covered with either long pilose or short pilose hairs only; upper blade surfaces with long pilose hairs at base and margins, glabrous or medium to short pilose otherwise. . . . . *P. implicatum*.

PASPALUM CILIATIFOLIUM Michx. var. STRAMINEUM (Nash) Fernald. PORTER: Beverly Shores, Aug. 19, 1956, *Glassman 3803* (NP). Otherwise known from Miller and Liverpool (Lake County, Ind.) and Michigan City (La Porte County) in the Chicago region. Also called *P. stramineum* Nash by Deam (1940) and other authors.

POA TRIVIALIS L. LAKE (Indiana): Highland, Aug. 15, 1925, *Peattie 1999* (F). First verifiable record for the Indiana part of the Chicago region. Peattie (1932) listed it for Clarke, Lake County, but I have not seen this particular specimen. In the literature, e. g. Fernald (1950),



Chase (1951) and Pohl (1954), there seems to be some confusion and contradiction in distinguishing among *P. trivialis*, *P. palustris* L., *P. alsodes* Gray, and *P. languida* Hitchc. The following key attempts to separate these species:

- Keel and marginal nerves of lemmas distinctly pubescent at least on lower half; panicle 10–30 cm. long. . . . . *P. palustris*.  
 Marginal nerves of lemmas glabrous or slightly pubescent on lower third; panicle 5–10 cm. long.  
 Lemmas very blunt, glabrous on keel; panicle branches in twos or threes. . . . . *P. languida*.  
 Lemmas acute at tip, pubescent on keel; panicle branches in fours or fives.  
 Spikelets 2.5–4.5 mm. long, crowded and sessile or on short pedicels; second glume with prominent lateral nerves. . . . . *P. trivialis*.  
 Spikelets 4–6 mm. long, loosely arranged on the panicle; second glume with obscure lateral nerves. . . . . *P. alsodes*.

SETARIA VERTICILLATA (L) Beauv. LAKE (Illinois): Waukegan, July 29, 1912, *Umbach 5849* (WIS). Not previously recorded from Lake County. Pepoon (1927) reported this species from Naperville, Du Page County, collected by Umbach, but the specimen cited is actually *S. lutescens* (Weigel) Hubb. (*S. glauca* (L.) Beauv.).

SETARIA VIRIDIS × FABERI? COOK: Chicago, Chapell and 68th streets, Sept. 26, 1941, *Standley* (F); Chicago, 53rd and Lake Shore Dr., Aug. 20, 1956, *Glassman 3815* (NP). *S. viridis* (L.) Beauv. is separated from *S. faberi* Herrm. by having spikelets 1.8–2.5 mm. long and glabrous blades vs. spikelets 2.6–3.0 mm. long and softly pubescent to glabrescent blades. Both specimens cited above have glabrous blades, but the *Standley* specimen has spikelets 2.5–2.8 mm. long and *Glassman 3815* has spikelets 2.8–3.0 mm. long. It is therefore supposed that these plants may be hybrids between *S. viridis* and *S. faberi*.

SORGHUM HALEPENSE (L.) Pers. COOK: Chicago, Brighton Park, Sept. 5, 1896, *Umbach 3539* (WIS). Another specimen listed for Cook County (East of Glencoe, June 22, 1907, *Gates 1686.1* (F)) by Pepoon (1927) is actually *Arrhenatherum elatius* (L.) Mert. & Koch f.; Mosher (1918) also cites the same specimen under *Holcus halepensis* L.

SPOROBOLUS ASPER (Michx.) Kunth. LAKE (Indiana): Hobart, Sept. 19, 1936, *Benke 5797* (F). First verifiable record for the Chicago region of Indiana. Pepoon (1927) lists this species from Tremont, Porter County, but I have not seen a specimen from there.

TRIODIA FLAVA (L.) Smyth f. CUPREA (Jacq.) Fosberg. PORTER: Beverly Shores, Sept. 5, 1956, *Glassman 3902* (NP); east boundary of Dune State Park, N. side of Rt. 12, Sept. 3, 1955, *Thieret 1643* (NP). COOK: Chicago, University Ave. near 53rd St., vacant lot, Sept. 30, 1956, *Glassman 3933* (NP). First records for the Indiana part of Chicago region, and the second report for Cook County, the other being from Thornton by Steyermark and Swink (1955).



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A MODEST PLEA IN FAVOR OF DIVERS TAXONS.—Dr. Lam's coining of the term taxon is another demonstration that necessity is the mother of invention. The sudden popularity of the word, with an acquired double meaning, perhaps illustrates the equally true converse, that invention is the mother of necessity. Having acquired a felicitous term to use in one area, we suddenly discover how badly we needed just such a term in a closely parallel one. There is nothing wrong with using the same term in both. The English word "man" signifies something concrete and individual, something concrete but generalized, and, further, something abstract and generalized. No difficulty arises from all this. If we were to carry over the idea of strictly segregated terms, we should not be allowed to say "man is a warm-blooded